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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,725	06/01/2001	Frederic Dufaux	15311-2305	4232
24267	7590	08/27/2004	EXAMINER	
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			SAFAIPOUR, HOUSHANG	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/872,725

Applicant(s)

DUFAUX ET AL.

Examiner

Houshang Safaipoor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 15-24 is/are rejected.
- 7) ☒ Claim(s) 6-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 06/22/01
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Altunbasak et al. (U.S. Patent No. 6,597,816).

Regarding claim 1, Altunbasak et al. discloses a method for generating an electronic version of a document, the method comprising the steps of: receiving a plurality of digital, electronic images of the document; generating a corrected image from each received image; deriving one or more motion parameters for each pair of consecutive, corrected images, the motion parameters indicating the relative motion between the consecutive, corrected images; aligning each image relative to the previous images based on the derived motion parameters; and

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blending each image into the previous images so as to produce the electronic version of the document (col. 1 line 59 through col. 2, line 50).

Regarding claim 2, Altunbasak et al. discloses the method of claim 1 wherein the digital, electronic images are produced by a digital video camera (col. 2, lines 46-50).

Regarding claim 3, Altunbasak et al. discloses the method of claim 1 wherein two or more series of digital, electronic images of the document are received, whereby each series of images corresponds to a respective sweep of the document by the video camera, the method further comprising the steps of: merging the images from each series together to form a composite, mosaic image of the respective sweeps, and merging consecutive mosaic sweep images together to form the electronic version of the document (col. 1 line 59 through col. 2, line 50).

Claims 1-5 and 15-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar et al. (U.S. Patent No. 6,173,087).

Regarding claim 1, Kumar et al. discloses a method for generating an electronic version of a document, the method comprising the steps of: receiving a plurality of digital, electronic images of the document; generating a corrected image from each received image; deriving one or more motion parameters for each pair of consecutive, corrected images, the motion parameters indicating the relative motion between the consecutive, corrected images; aligning each image relative to the previous images based on the derived motion parameters; and blending each image into the previous images so as to produce the electronic version of the document (col. 1, lines 21-52 and col. 11, line 19-56).

Regarding claim 2, Kumar et al. discloses the method of claim 1 wherein the digital, electronic images are produced by a digital video camera (col. 11, lines 51-56).

Regarding claim 3, Kumar et al. discloses the method of claim 1 wherein two or more series of digital, electronic images of the document are received, whereby each series of images corresponds to a respective sweep of the document by the video camera, the method further comprising the steps of: merging the images from each series together to form a composite, mosaic image of the respective sweeps, and merging consecutive mosaic sweep images together to form the electronic version of the document (col. 1, lines 21-52 and col. 11, line 19-56).

Regarding claim 4, Kumar et al. discloses the method of claim 3 wherein the step of deriving the one or more motion parameters comprises the step of minimizing a sum of squares differences between each pair of consecutive images (col. 4, line 64 through col. 5 line 30).

Regarding claim 5, Kumar et al. discloses the method of claim 4 wherein in the corrected image frames include a plurality of pixels, and the sum of squares differences is applied on a pixel-by-pixel basis (col. 4, line 64 through col. 5 line 30).

Regarding claims 15-17, the arguments analogous to those presented for claims 1, 2 and 4 are applicable to claims 15-17 respectively.

Regarding claim 18, Kumar et al. discloses the system of claim 17 further comprising at least one look-up table (LUT) containing, for each pixel of the received images, a corresponding entry containing a correction factor, and wherein the image correction engine utilizes the correction factors stored at the at least one LUT to produce the corrected images (col. 10, lines 24-67).

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Regarding claim 19, Kumar et al. discloses the system of claim 18 wherein the digital video camera is mounted to a stand, and the correction factors stored at the at least one LUT correct for off-axis illumination and radial lens distortion of the video camera, and for tilt of the video camera relative to the stand (col. 9, line 26 through col. 10 line 67).

Regarding claim 20, Kumar et al. discloses the system of claim 19 wherein the at least one motion estimation engine includes an image pyramid having a plurality of levels, each level of the image pyramid configured to perform an iterative gradient descent operation and a convergence operation on consecutive images to produce the one or more motion parameters, the motion parameters from a given level being used as a starting point for the iterative gradient descent and convergence operations of the next lower level of the pyramid (col. 5 line 21-30)

Regarding claims 21-24, the arguments analogous to those presented for claims 4, 18 and 20 are applicable to claims 21-24 respectively.

#### ***Allowable Subject Matter***

Claims 6-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Houshang Safaipoor  
Patent Examiner  
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Aug 19, 2004

  
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